



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,266	10/31/2003	Leo Wenstrup	1-16404	1672
7590	05/08/2006		EXAMINER	
Marshall & Melhorn, LLC Attn: Mark A. Hixon, Esq. 8th Floor Four SeaGate Toledo, OH 43604			LUONG, VINH	
			ART UNIT	PAPER NUMBER
			3682	
			DATE MAILED: 05/08/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/698,266	WENSTRUP ET AL.	
	Examiner	Art Unit	
	Vinh T. Luong	3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 24 April 2006.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-10 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-10 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 24 April 2006 & 10/31/03 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.



Vinh T. Luong
Primary Examiner

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 3/29/04 & 3/1/05.

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: Attachment.

1. The drawings were received on April 24, 2006. These drawings are not accepted by the Examiner because of the reasons, *e.g.*, listed below:

- (a) Fig. 1 lacks the label "PRIOR ART." See original Fig. 1 and paragraphs [0009] and [0012] of the specification; and
- (b) The various parts in Fig. 2 should be embraced by a bracket in order to show their relationship or their order of assembly.

2. The drawings filed on April 24, 2006 are objected to because:

- (a) Fig. 1 lacks the label "PRIOR ART"; and
- (b) The various parts in Fig. 2 should be embraced by a bracket in order to show their relationship or their order of assembly.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

Art Unit: 3682

be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Arnold (US Patent No. 4,719,677).

Regarding claim 1, Arnold teaches a pilot web and differential carrier assembly, comprising:

a pilot web 56 comprising first and second ends (see Attachment), at least one aperture 60 is located at each of said first and second ends (Att.);

a differential carrier 64 comprising at least two apertures 67 in complementary locations to said apertures 60 of said pilot web 56;

a first stop (Att., Fig. 4) on said pilot web 56;

a second stop (Att., Fig. 4) on said differential carrier 64, said second stop (Att.) being disposed adjacent to, and aligned with, said first stop (Att.), wherein said first and second stops (Att.) define a gap there between;

at least two bolts 70 disposed through said respective apertures 60 and 67 of said pilot web 56 and said differential carrier 64; and

at least two bushings 71, said bushings 71 being disposed about corresponding ones of said at least two bolts 70.

Regarding claim 2, each end (at 60 in Fig. 4) of said pilot web 56 comprises a single aperture 60, and said differential carrier 64 comprises two apertures 67 in complementary locations to said apertures 60 of said pilot web 56.

Regarding claim 3, each end (at 60 in Fig. 3) of said pilot web 56 comprises two apertures 60, and said differential carrier (not shown in Fig. 3) comprises four apertures in complementary positions to said apertures 60 of said pilot web 56. *Ibid.* col. 2, line 47 through col. 3, line 58, and claims 1-3.

Regarding claim 4, the pilot web and differential carrier assembly of the embodiment of Fig. 3 comprises four bolts disposed through said complementary apertures 60 and 67 of said pilot web 56 and said differential carrier 64. *Ibid.* col. 2, line 47 through col. 3, line 58, and claims 1-3.

Regarding claim 5, the pilot web and differential carrier assembly of the embodiment of Fig. 3 comprises four bushings 71, each of said bushings 71 being disposed about a corresponding one of said bolts 70. *Ibid.* col. 2, line 47 through col. 3, line 58, and claims 1-3.

Regarding claim 6, the pilot web and differential carrier assembly of the embodiment of Fig. 4 comprises two bushings 71, one of said bushings 71 is disposed about a corresponding one of said bolts 70 at said first end (Att.) of said pilot web 56, and the other of said bushing 71 is disposed about a corresponding one of said bolts 70 at said second end (Att.) of said pilot web 56. See col. 4, line 61 through col. 5, line 3.

Regarding claim 7, each of said apertures 60 in said pilot web 56 and each of said apertures 67 in said differential carrier 64 which correspond to one of said bushings 71 is counter bored (Att., Fig. 4) to receive the bushing 71. *Ibid.* col. 2, line 47 through col. 3, line 6.

Regarding claim 10, the gap between said first stop (Att., Fig. 4) and said second stop (Att.) is inherently selected to essentially maximize transfer of forces from the pilot web 56 to the carrier 64. Note that a “whereby” or “wherein” clause that merely states the inherent result of the limitations set forth in the claim adds nothing to the patentability or substance of the claim. *Texas Instrument Inc. v. International Trade Commission*, 26 USPQ2d 1018 (Fed. Cir. 1993); *Griffin v. Bertina*, 62 USPQ2d 1431 (Fed. Cir. 2002); *Amazon.com Inc. v. Barnesandnoble.com Inc.*, 57 USPQ2d 1747 (Fed. Cir. 2001).

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arnold in view of Gievers (US Patent No. 6,122,995).

Arnold teaches the invention substantially as claimed. However, Arnold does not explicitly teach the steel bushing.

Gievers teaches to form the bushing 4 of metal that inherently includes steel in order to permit the fastener such as a screw or bolt 15 to be tightened with high torque. *Ibid.* col. 2, lines 22-24. The steel is a notoriously well known material in the art as evidenced by, *e.g.*, US Patent No. 5,207,121 issued to Bien.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to form Arnold's bushing of metal that inherently includes steel in order to permit Arnold's bolt to be tightened with high torque as taught or suggested by Gievers. See *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960) and MPEP 2144.07.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arnold.

Arnold teaches the invention substantially as claimed. However, Arnold does not explicitly teach the dimension of the gap between said first and second stops to be about 0.002 inch when not under load.

Arnold's gap between said first and second stops when not under load inherently must have a certain dimension. It would have obvious to one having ordinary skill in the art at the time the invention was made to change the certain dimension of Arnold's gap between said first and second stops when not under load to be about 0.002 inch in order to improve the fastening of the pilot web and the differential carrier. See changes in size/proportion in MPEP 2144.04.

9. Claims 1-7 and 10 are further rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art (APA) in view of Arnold.

Regarding claim 1, APA shown in Applicant's Fig. 1 teaches a pilot web and differential carrier comprising a pilot web 102 that is cast as a unitary piece with a carrier 100, and mounting bolts 104 for mounting the carrier assembly. In other words, APA teaches the invention

Art Unit: 3682

substantially as claimed. However, APA's pilot web and carrier are formed as one piece instead of two pieces and connected together.

Arnold teaches to form the pilot web 56 and the differential carrier or the like 64 as separate pieces and connected together by first and second stops, at least two bolts 70, and at least two bushings 71 in order to reduce the casting and/or manufacturing equipment required to provide an un-machined or engine block assembly. See Arnold, col. 1, lines 54 through col. 2, line 25. See also legal precedent regarding making separable in MPEP 2144.04.

It would have been obvious to one having ordinary skill in the art at the time the invention was made form the pilot web and the differential carrier of APA as separate pieces and connected together by first and second stops, at least two bolts, and at least two bushings in order to reduce the casting and/or manufacturing equipment required to provide an un-machined or engine block assembly as taught or suggested by Arnold.

Regarding claim 2, each end (at 60 in Fig. 4) of Arnold's pilot web 56 comprises a single aperture 60, and Arnold's differential carrier or the like 64 comprises two apertures 67 in complementary locations to said apertures 60 of said pilot web 56.

Regarding claim 3, each end (at 60 in Fig. 3) of Arnold's pilot web 56 comprises two apertures 60, and Arnold's differential carrier or the like (not shown in Fig. 3) comprises four apertures in complementary positions to said apertures 60 of said pilot web 56. *Ibid.* col. 2, line 47 through col. 3, line 58, and claims 1-3.

Regarding claim 4, the pilot web and differential carrier assembly of the embodiment of Fig. 3 of Arnold comprises four bolts disposed through said complementary apertures 60 and 67

Art Unit: 3682

of said pilot web 56 and said differential carrier 64. *Ibid.* col. 2, line 47 through col. 3, line 58, and claims 1-3.

Regarding claim 5, the pilot web and differential carrier assembly of the embodiment of Fig. 3 of Arnold comprises four bushings 71, each of said bushings 71 is disposed about a corresponding one of said bolts 70. *Ibid.* col. 2, line 47 through col. 3, line 58, and claims 1-3.

Regarding claim 6, the pilot web and differential carrier assembly of the embodiment of Fig. 4 of Arnold comprises two bushings 71, one of said bushings 71 is disposed about a corresponding one of said bolts 70 at said first end (Att.) of said pilot web 56, and the other of said bushing 71 is disposed about a corresponding one of said bolts 70 at said second end (Att.) of said pilot web 56. See col. 4, line 61 through col. 5, line 3.

Regarding claim 7, each of Arnold's apertures 60 in said pilot web 56 and each of Arnold's apertures 67 in said differential carrier or the like 64 which correspond to one of said bushings 71 is counter bored (Att., Fig. 4) to receive the bushing 71. *Ibid.* col. 2, line 47 through col. 3, line 6.

Regarding claim 10, the gap between Arnold's first and second stops is inherently selected to essentially maximize transfer of forces from the pilot web 56 to the carrier 64. *Texas Instrument Inc. v. International Trade Commission; Griffin v. Bertina; and Amazon.com Inc. v. Barnesandnoble.com Inc, supra.*

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Ashworth (web 19 in Fig. 5), Gilmore (web 10 and aperture), and Tsuboi (abstract and claims 1-3).

Art Unit: 3682

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinh T. Luong whose telephone number is 571-272-7109. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Luong

May 4, 2006



Vinh T. Luong
Primary Examiner

ATTACHMENT

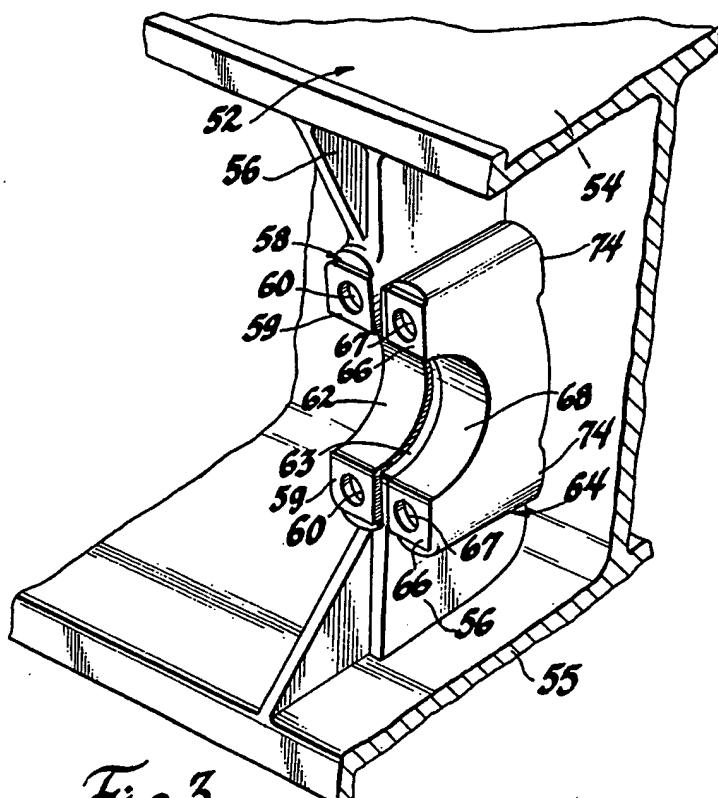


Fig. 3

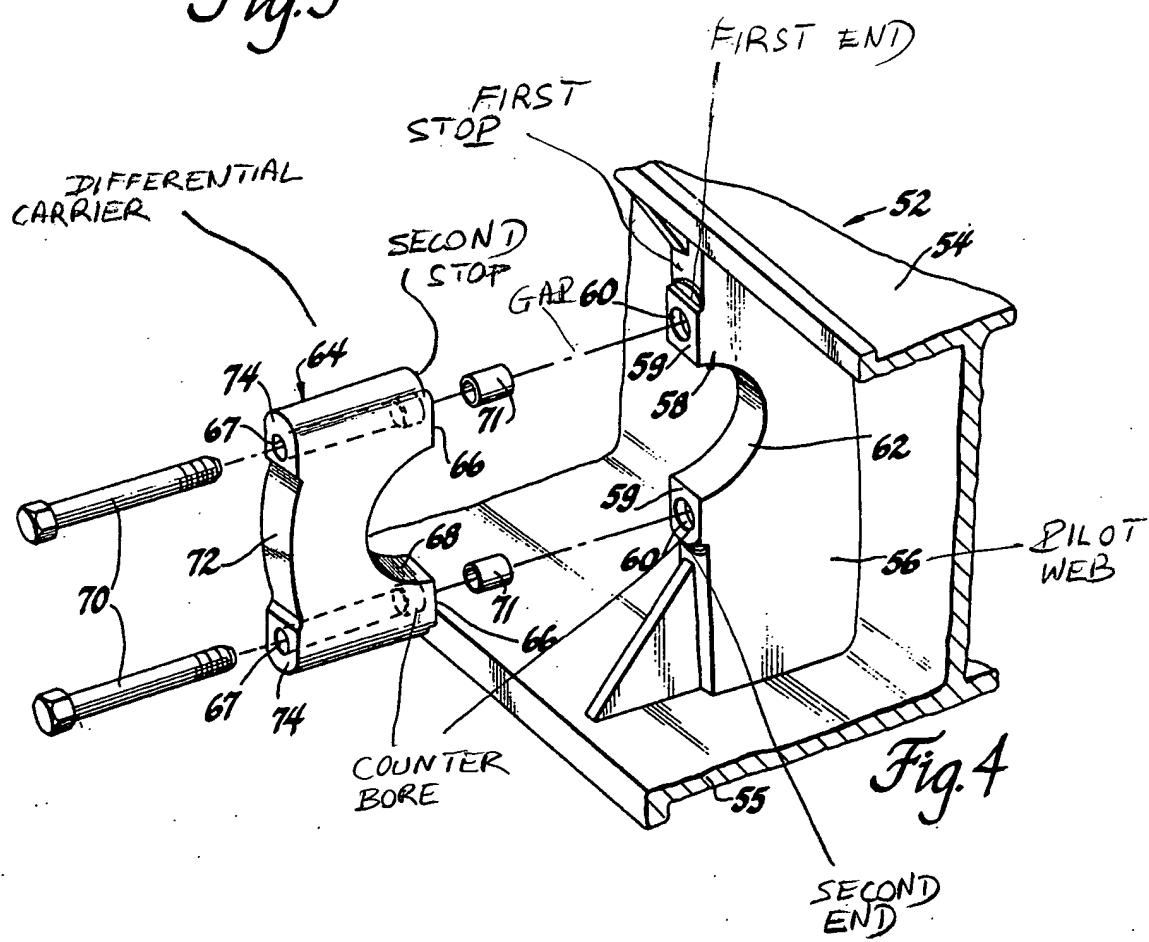


Fig. 4